

Pennsylvania Commission on Crime and Delinquency
Guidelines and Technology Standards for the Collection and Transmission of
Booking Center Captured Offenders' Identification Information

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Introduction

The Pennsylvania Commission on Crime and Delinquency (PCCD) and its partners have developed this set of guidelines and technology standards to facilitate achieving the goals of Act 81 of 2008 and the Federal Walsh Act requirements. It has always been the desire of PCCD and its partners that, over time, ultimately, every Pennsylvania criminal arrest is digitally recorded with fingerprints, hand impressions, photographs, images of scars, marks, and tattoos, arrest demographics, and offenses charged; and then successfully submitted to the computerized central repositories at the Pennsylvania State Police. It is also desired that any other submissions (applicant, Megan's Law registrations, etc.) to those repositories also meet standards for data quality. Further implementation of these guidelines and technology standards will help the Commonwealth to move towards achieving these goals and desires.

DEFINITIONS

AFIS: Automated Fingerprint Identification System, an automated system for searching fingerprint files and transmitting fingerprint images. AFIS computer equipment can scan fingerprint impressions (or utilize electronically transmitted fingerprint images) and automatically extract and digitize ridge details and other identifying characteristics in sufficient detail to enable the computer's searching and matching components to distinguish a single fingerprint from thousands or even millions of fingerprints.

Booking Center: A facility utilized for the processing and identification of individuals arrested, charged or accused of a crime (part of the Booking process).

Booking Center Operating Agency: A criminal justice agency operating or with management control authority over the Booking Center System.

Booking Center System: The collection of devices (Live Scan Finger and Palm Print Capture Device, CPIN Digital Photo Image Capture Device and CLEAN Response Device) and shared components organized to accomplish the criminal booking process for an individual arrested, charged or accused of a crime.

CCHRI: Computerized Criminal History Record Information, Computerized information collected by criminal justice agencies concerning individuals, and arising from the initiation of a criminal proceeding, consisting of identifiable descriptions, dates and notations of arrests, indictments, information or other formal criminal charges and any dispositions arising there from.

CLEAN: Commonwealth Law Enforcement Assistance Network, is provided and administered by the Pennsylvania State Police, is used by the Commonwealth's criminal justice agencies to access driver license and motor vehicle information, state criminal history record information maintained in the Pennsylvania State Police Central Repository, the Commonwealth's central registry for Protection from Abuse orders, "hot" (stolen and wanted) files, law enforcement messaging capabilities, and a host of other services.

CPIN: Commonwealth Photo Imaging Network, a digital photo technology network throughout the state that captures photographs and allows the images to be searched and viewed for investigative and other purposes.

Criminal Justice Agency: As defined by FBI CJIS and by the PSP, the CSA in Pennsylvania.

CSA: CJIS Systems Agency, a criminal justice agency that has overall responsibility for the administration and usage of the FBI CJIS Division programs within a state, district, territory, or foreign country

FBI: Federal Bureau of Investigation.

FBI CJIS: Criminal Justice Information Services Division (CJIS), serves as the focal point and central repository for criminal justice information services in the FBI.

Live Scan: Both the technique and the technology used by law enforcement agencies and private facilities to capture fingerprints and palm prints electronically, without the need for the more traditional method of ink and paper.

Local Booking Center System Administrator: A person designated by the Booking Center Operating Agency to be the primary contact between the Booking Center Operating Agency and the Vendor.

LTW: Local Technology Workgroup, a PCCD sanctioned workgroup that has provided oversight and guidance to previous PCCD funded offender identification and central booking projects. This workgroup includes membership from all Booking Center stakeholders.

NIST: National Institute of Standards and Technology.

ORI: Originating Agency Identifier is a code assigned to designate the administration or organization originating a transaction was developed by the FBI CJIS National Crime Information Center (NCIC).

PSP: Pennsylvania State Police.

State Law Enforcement Agency: The state law enforcement agency to whom the Booking Center Operating Agency will be transmitting finger and palm print records, the PSP in Pennsylvania.

Vendor: The private company that installs and/or supports the Booking Center System which has been properly vetted through the personnel requirements of PSP CLEAN Administrative Regulations.

Live Scan Finger and Palm Print Capture Device Standard Specification

PURPOSE

The purpose of this technology standard specification is to effect implementation, within all Booking Centers, a standard Live Scan fingerprint and palm print capture and transmission device (Live Scan Device) that will improve the

efficiency and speed for finger and palm printing arrestees and lower rejection rates by the AFIS authority, the Pennsylvania State Police (PSP). This specification is for all Live Scan equipment capable of scanning, capturing and electronically transmitting fingerprints and palms in the current NIST/FBI standard format to the state Automated Fingerprint Identification System (AFIS) located at the PSP.

1.0 LIVE SCAN DEVICE PERFORMANCE SPECIFICATION

1. The Live Scan Devices must submit records to the State Law Enforcement Agency that adhere to both PSP technical and procedural specifications (see item #4 below) along with meeting current NIST/FBI standard format.
2. All Live Scan Device captured data must be formatted for transmission to the specifications of PSP's AFIS and CCHRI Systems (40+ card printout formats) specifications (see item #4 below)
3. The fingerprint/palm scanner must be certified by the PSP
4. Relevant PSP Live Scan Device specifications includes, but is not limited to:
 - a. Electronic Fingerprint Submissions for Criminal Processing Technical Specifications Version 1.0 – available here:

Director, Bureau of Information Technology
Pennsylvania State Police
1st Floor, Department Headquarters
1800 Elmerton Avenue
Harrisburg, PA 17110
 - b. Guidelines for Mandatory Fingerprinting and Preparation of Pennsylvania State Police Fingerprint Cards, available here:

Director, Criminal Records and Identification Division
Pennsylvania State Police
Central Repository -2nd Floor,
Department Headquarters
1800 Elmerton Avenue
Harrisburg, Pennsylvania 17110-9758
 - c. The latest FBI Criminal Justice Information Services Division, ELECTRONIC BIOMETRIC TRANSMISSION SPECIFICATION (EBTS), available here - <https://www.fbibiospecs.cjis.gov/>
5. The Live Scan Device must be tested and approved by the State Law Enforcement Agency and be reviewed and approved by the Pennsylvania Commission on Crime and Delinquency Local Technology Workgroup (LTW).

6. The Live Scan Device must offer an eXtensible Markup Language (XML) interface to the Booking Center Operating Agency's existing demographic software.
7. The Live Scan Device must have an open standard data exchange inbound interface for offender identification information from the booking center located CPIN device.
8. The Live Scan Device must have quality control software capable of alerting the operator through the use of displayed warnings of image problems; i.e. finger out of sequence, images too dark or too light, etc. All prints captured must pass a minimum pass/fail rejection level established by the State Law Enforcement Agency and the LTW.
9. In order to eliminate lost records, the Live Scan Device must provide guaranteed delivery of the completed record to any and all destinations and provide two-way communications with records management systems and AFIS.
10. The Live Scan Device must support a local printer for output of hard copy cards in the various existing card formats without the requirement of a separate print server. The operator must have the option of selecting the appropriate card type for local printing.
11. All Live Scan Device palm capture enrollment transactions must include all Logical Record Mandatory Fields listed here - <https://www.fbibiospecs.cjis.gov/>
12. The Live Scan Device must be able to store all Pennsylvania Statutes, criminal offenses and an ORI table.
13. The Live Scan Device must provide images free from residue left from a previous capture of impressions.

2.0 TECHNICAL SPECIFICATION

The Live Scan Device will include the fingerprint and palm capture equipment components along with the necessary fingerprint and palm acquisition software. The control computer, display, keyboard/mouse, printer and cabinet components (found in Booking Center System Shared Components section) may be shared with the Booking Center System or be dedicated to the Live Scan Device.

Equipment

a. Fingerprint Capture Scanner Component

1. The scanner must capture prints with a minimum of 500 dots per inch with capability to capture up to 1000 dots per inch.
2. The fingerprint capture component and software must be self-calibrating.

b. Palmprint Capture Scanner Component

1. The scanner must capture prints with a minimum of 500 dots per inch with capability to capture up to 1000 dots per inch.
2. The palmprint capture component and software must be self-calibrating.

Software

- a. The user interface must be a graphical style interface.
- b. The user interface must have live image preview during the capture of roll and slap impressions, displaying the finger/palm as it is being rolled.
- c. A slap to roll fingerprint/palm comparison, or sequence check, of images must be done, ensuring that the proper sequence of the rolled impressions has been accomplished
- d. The software must have the capability to search for existing records in local storage using demographic fields that are configured by the Local Booking Center System Administrator.
- e. The software must alert the operator through the use of displayed warnings of image problems, i.e. finger/palm out of sequence, finger/palm quality control, etc.
- f. The software must be capable of providing individual print cards.
- g. The software must have built-in security procedures for user logon assuring that only certain users have specified capabilities.
- h. The software must maintain a transaction queue of, at a minimum, the last 1000 fingerprint transactions and the last 500 palmprint transactions.
- i. The software must analyze fingerprint/palm image quality so that poorly scanned fingers/palms can be rescanned immediately.
- j. The software must be capable of receiving updates electronically as defined by the PSP.

CPIN Photo Image Capture Device Standard Specification

PURPOSE

The purpose of this specification is to effect implementation of a standard CPIN photo image capture and transmission device (CPIN Device) that will improve the efficiency and speed for photographing arrestees. This specification is for all CPIN Photo Image Capture devices capable of capturing and electronically transmitting mugshots and other digital media, in the current NIST/FBI standard format, to the CPIN central repository located at the PSP.

- This link is to the approved guidelines and recommendations for *Capture and Equipment Assessment for Face Recognition Systems* which is posted on the Facial Identification Scientific Working Group (FISWG) website. The document

outlines best practices for collection to ensure the images captured are suitable for facial recognition system use.

https://fiswg.org/fiswg_fr_systems_guidelines_v2.0_20191025.pdf

1.0 CPIN DEVICE PERFORMANCE SPECIFICATION

1. The CPIN Device must have an open standard data exchange inbound and outbound interface from a RMS and other services for offender identification information.
2. The CPIN Device must have an open standard data exchange outbound interface for offender identification information to a central or regional booking center located Live Scan Device.
3. The CPIN Device must be able to store all Pennsylvania Statutes, criminal offenses and an ORI table.
4. The CPIN Device must be compliant with ANSI/NIST Best Practice and Face Pose Value Documents,
https://www.nist.gov/system/files/documents/2021/03/18/ansi-nist_archived_2010_best_practice_face_pose_value.pdf
5. The CPIN Device must capture all data in a format that meets the specifications of the PSP AFIS, CCHRI and Megan's Law Systems along with the JNET Facial Recognition System (JFRS) Contact the JNET Office for more information on JFRS.
6. The CPIN Device must be tested and approved by the State Law Enforcement Agency and be reviewed and approved by the Pennsylvania Commission on Crime and Delinquency Local Technology Workgroup (LTW).

2.0 TECHNICAL SPECIFICATION

The CPIN Device will include the Digital Image Capture equipment component along with the necessary mugshot acquisition software, and the Lighting, Background and Signature Pad equipment components. The control computer, display, keyboard/mouse, printer and cabinet components (found in Booking Center System Shared Components section) may be shared with the Booking Center System or be dedicated to the CPIN Device

Equipment

- a. Digital Image Capture Component
 - a. Digital Camera + AC Adapter – minimum NIST resolution
 - b. Power Panner (Keyboard Control) + AC Adapter
- b. Lighting Component
 - a. RF Switch Controller for Light System

- c. Background Component
 - a. 18% Gray Backdrop per ANSI/NIST BEST Practices for Mugshots
- d. Signature Pad Component
 - a. Sensor Type - Touchpad
 - b. Pen Type - Passive stylus
 - c. Dimensions - 6" x 3.8" x 0.70"
 - d. Signing Area - 4.4" x 1.3"
 - e. Data conversion rate - 377 points per second
 - f. Resolution - 410 true points per inch
 - g. Authentication capability - Forensic-quality. SIG data capable of examination and authentication

Software

1. The user interface must be a graphical interface.
2. Photo mugshot Retrieval Software
3. Photo mugshot Capture Software
4. JNET JFRS "facial plate" capture and interface
 - a. An application that uses face finding and centering technology for framing of the subject's head within the image capture process and provides image quality control to include a feature of acceptance or rejection of image based on pre-determined values for image quality and notifies the operator of the parameters that do not meet the minimum acceptable standard (e.g. Brightness/Darkness, head size, head tilt, etc). The program should reject a poor image three times before allowing an override of the process.
5. Local Arrest DB with CPIN Server Consolidation
6. Camera Keyboard Control Software
7. Keyboard Panner Control Software
8. Quality Assurance Software
9. Watch List and Watch List Notification Software (JNET)
10. Signature Capture Software
11. Live Scan Interface
12. Megan's Law Interface (PSP)
13. Clone Process for Updates and Expungements
14. Megan's Law Registry Module Software
15. CPIN Export Templates

CLEAN Response Device Standard Specification

PURPOSE

A Central Booking System is required to have a CLEAN Response Device designated in a secure location that is capable of receiving criminal history record

and Hotfiles (RAP Sheet, etc.) responses associated with the individual being arrested.

The Booking Center System CLEAN Response Device must comply with PSP CLEAN Regulations, available here:

Contact:
Pennsylvania State Police
Bureau of Communications & Information Services
CLEAN Administrative Section
CJIS Officer
8001 Bretz Drive
Harrisburg, PA 17112
717-783-5575
FAX- 717-772-1434

Booking Center System Shared Components

1. The Booking Center System will include at least one Control Computer component that may be shareable between the Live Scan and CPIN Devices.
 - a. Windows XP “style” or later operating system
 - b. Mouse/keyboard
2. The Booking Center System will include at least one Uninterruptible Power Supply (UPS) component that may be shareable between the Live Scan and CPIN Devices.
 - a. Must be able to back up all devices for a minimum of one hour.
3. The Booking Center System will include at least one display component that may be shareable between the Live Scan and CPIN Devices.
 - a. Must have a 17" (or larger) color display.
4. The Booking Center System will include at least one printer component that may be shareable between the Live Scan and CPIN Devices.
 - a. The booking center system must include a local printer with duplexer for output of hard copy cards in the existing double-sided criminal ten-print card format without the requirement of a print server.
 - b. The printer must have at least dual paper trays (one for criminal ten-print cards and one for applicant cards).
 - c. This printer may also be network connected if the configuration is first approved by the PSP.

Booking Center System Security

1. All Booking Center System device network communications, outside of the Booking Center System, must be logically separated from the Booking Center System and the configuration must be first approved by the PSP.
2. All Booking Center System software must comply with commonwealth enterprise network protection requirements as defined in the appropriate OA/OIT Information Technology Bulletins (ITB) located here - <https://www.oa.pa.gov/Policies/Pages/itp.aspx>
3. The Booking Center System devices and components must be housed in a “ruggedized” (i.e. all steel or equivalent construction enclosure with a scanner deck that is encased in a hardened metallic protective housing and cover) cabinet that is appropriate for the hostile environment of the various types of Booking Center facilities.

Michael Pennington
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